ATC OPES™

Flight Simulator/Computer System Interface

The ATC® OPES™ (Objective Pilot Evaluation System) is a computer interface system for use with any currently available personal computer. Capable of monitoring and permanently recording any of 30 different pilot operations, the ATC® OPES™ represents state of the art in flight instruction/training equipment.

ATC® OPES™ provides not only traditional flight recording in the horizontal plane (x-y) but also provides tracking in the vertical plane (z) (See Figure 1). This feature will enable the instructor to monitor the students altitude holding ability, during the entire flight from takeoff to completion of landing. A hard copy print out is also available to provide a permanent record of the flight.
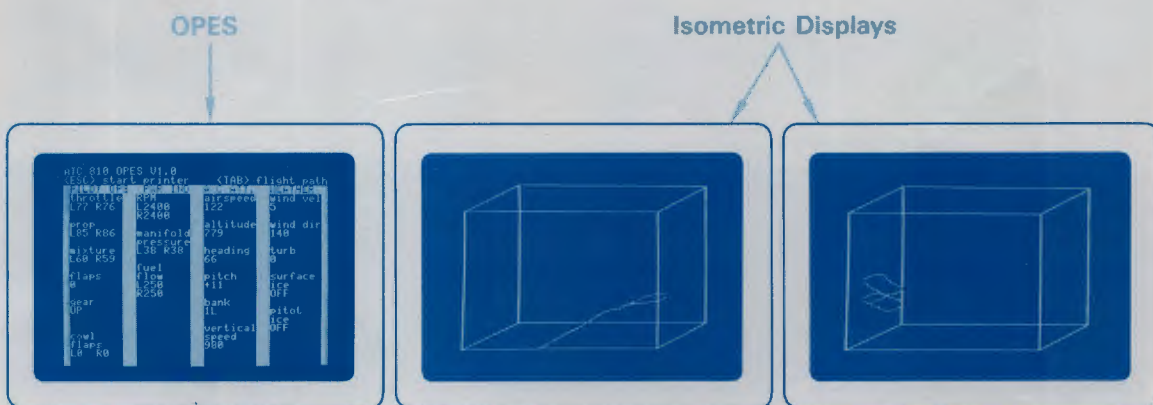

Figure 1

Every pilot operation, as well as every flight parameter, is displayed at the instructors station. From brake release and full power at takeoff to completion of landing the instructor will be provided with a real time readout and subsequent hard copy printout of the students actions. For instance: During takeoff; at what speed did the student rotate, and what pitch attitude did he rotate to, when did he retract the gear, what power settings did he use for climb, did he lean appropriately and at the correct time...

Every pilot operation, as well as the entire aircraft performance, are available for the instructor, either on the monitor or printer.

ATC® OPES™ provides a truly objective presentation of the student's flight performance for effective post flight debriefing.

The ATC® OPES™ was designed with the flight instructor in mind. No special computer language is necessary to talk to the computer. Each operation desired is presented on the monitor in a menu format and tells the operator what key(s) to press to attain the desired result. This simplistic design approach helps keep the flight instructor free to attend to his more important responsibility... flight instructing.

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AIRCRAFT ATTITUDE					BANK		POWER INDICATION						PILOT OPERATIONS											WEATHER						
							MP		RPM		F.F.				THR		PROP		MIX		COWL						ICING		WIND	
TIME	ALT	HDG	A/S	VSI	ANGLE	PITCH	L	R	L	R	L	R	FLAPS	GEAR	L	R	L	R	L	R	L	R		TURB	SURF	PITOT		VEL	HDG		
0:12	126	66	0	0	0	+0	11	11	600	600	30	30	0	DOWN	15	17	99	99	99	99	99	0	0	0	0	0		05	140		
0:18	126	66	41	0	0	+0	43	44	2500	2500	250	250	0	DOWN	99	99	99	99	99	99	99	0	0	0	0	0		05	140		
0:24	126	66	89	0	0	+4	44	44	2500	2500	250	250	0	DOWN	99	99	99	99	99	99	99	0	0	0	0	0		05	140		
0:31	145	66	109	950	2R	+9	43	44	2500	2500	250	250	0	DOWN	99	99	99	99	99	99	99	0	0	0	0	0		05	140		
0:38	207	67	114	970	1R	+9	43	43	2500	2500	250	250	0	UP	99	99	99	99	99	99	99	0	0	0	0	0		05	140		
0:43	260	66	121	960	1L	+9	38	38	2450	2400	180	180	0	UP	82	76	85	85	60	58	0	0	0	0	0	0		05	140		
0:48	300	92	126	850	1TR	+7	39	38	2400	2400	180	180	0	UP	77	76	85	86	60	58	0	0	0	0	0	0		05	140		
0:55	385	96	124	850	16R	+7	39	38	2400	2400	180	180	0	UP	77	76	85	85	60	59	0	0	0	0	0	0		05	140		
1:01	471	110	121	910	1R	+8	38	38	2400	2400	180	180	0	UP	77	76	85	86	60	58	0	0	0	0	0	0		05	140		
1:07	565	110	120	950	0	+9	38	38	2400	2400	180	180	0	UP	77	76	85	86	60	58	0	0	0	0	0	0		05	140		
1:13	666	111	116	970	0	+9	38	38	2400	2400	180	180	0	UP	77	76	85	86	60	58	0	0	0	0	0	0		05	140		
1:19	761	110	112	980	0	+10	38	38	2400	2400	180	180	0	UP	77	76	85	86	60	59	0	0	0	0	0	0		05	140		
1:24	848	109	119	970	2L	+9	38	38	2400	2400	180	180	0	UP	77	76	85	86	60	59	0	0	0	0	0	0		05	140		
1:30	950	110	120	970	1R	+9	38	38	2400	2400	180	180	0	UP	77	76	85	86	60	59	0	0	0	0	0	0		05	140		
1:37	1055	108	121	980	1R	+9	38	38	2450	2400	180	180	0	UP	77	76	85	86	60	59	0	0	0	0	0	0		05	140		

Figure 2
Reduced copy of actual OPES printout

ATC® OPES™ provides real time monitoring and hard copy printout (See Figure 2) of the following pilot operations and flight parameters:

PILOT OPERATIONS

Throttle Lever Position
Prop Lever Position
Mixture Lever Position
Flap Position (degrees)
Cowl Flap Position
Landing Gear Position

Also:

Manifold Pressure (L&R in PSI)
RPM (L&R)
Fuel Flow (L&R in LBS/hr)

AIRCRAFT ATTITUDE

Heading
Altitude
Airspeed
VSI
Bank Angle
Pitch Attitude

WEATHER FACTORS

Wind Direction
Wind Velocity
Turbulance
Wing Icing
Pilot Icing

The ATC® OPES™ is directly compatible with any Apple II, Apple II+, Apple IIc, or Franklin 1000 and 12000 computers. For use with IBM, or Digital personal computers, the ATC® OPES™ will need a software change and ATC will therefore require a slightly increased lead time to ship OPES™ after receipt of customer order.

The ATC® OPES™ can be purchased either by itself (simulator/computer interface and operating instructions) or ATC® can provide a complete personal computer system compatible with OPES™. Call today to discuss how the ATC® OPES™ can expand the capabilities of your flight department through state-of-art technology.
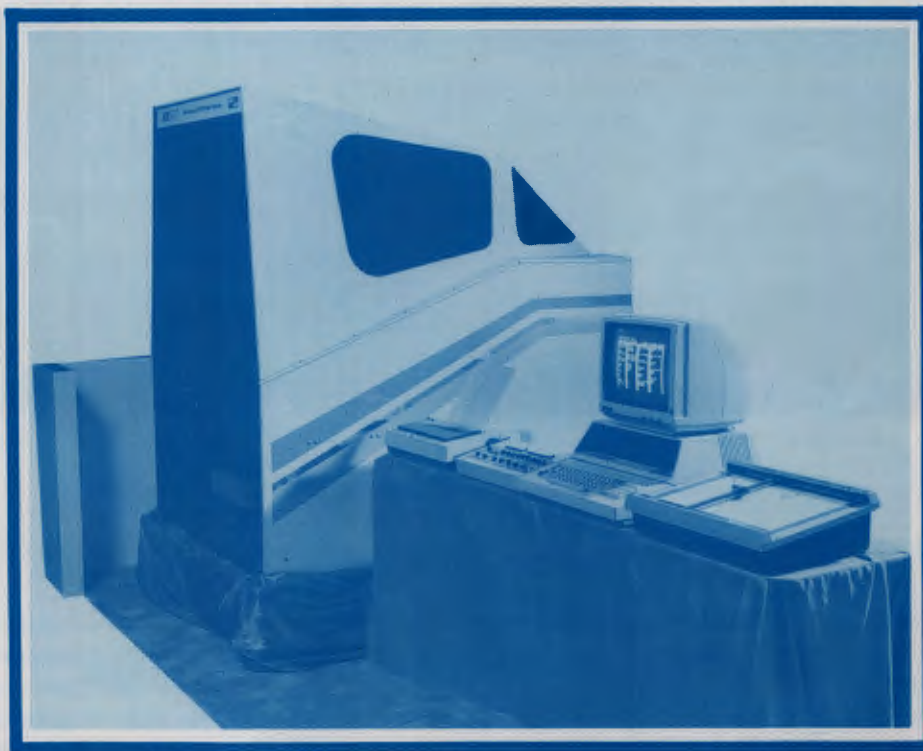

Figure 3
Typical ATC® OPES™ Installation

ATC® Flight Simulator Co.

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